

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 17487 4/2/2001]

[Docket No. 99-NM-312-AD; Amendment 39-12162; AD 2001-06-15]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -700C, and -800 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737-600, -700, -700C, and -800 series airplanes, that requires inspections of the fasteners in the elevator balance panel assemblies to detect various discrepancies; and corrective actions, if necessary. This amendment is prompted by a report that an elevator balance panel was found disconnected from the horizontal stabilizer due to the improper installation of fasteners during production. The actions specified by this AD are intended to prevent jamming, restricting, or binding of the elevator control surfaces due to loose or missing fasteners, which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane.

DATES: Effective May 7, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 7, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Scott Fung, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1221; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 737-600, -700, and -800 series airplanes was published in the **Federal Register** on September 18, 2000 (65 FR 56266). That action proposed to require inspections of the fasteners in the elevator balance panel assemblies to detect various discrepancies; and corrective actions, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Several comments were received from a single commenter, and due consideration has been given to these comments.

Request to Reference New Service Bulletin

The commenter requests that the FAA revise the proposed rule to reference Boeing Service Bulletin 737-55A1064, Revision 1, dated December 7, 2000, as the appropriate source of service information for the actions required by this AD. (The proposed rule referenced the original issue of Boeing Service Bulletin 737-55A1064, dated October 15, 1998, as the appropriate

source of service information.) The commenter points out that Revision 1 of the service bulletin clarifies some accomplishment instructions in the original issue of the service bulletin.

The FAA concurs with the commenter's request to revise the proposed rule to reference Revision 1 of the service bulletin. The FAA finds that the procedures described in Revision 1 are essentially similar to those described in the original issue, though some information has been clarified. In addition, Revision 1 specifies procedures for disposition of certain repair conditions that were omitted in the original issue. (This omission was described in the preamble of the proposed rule as a difference between the proposed rule and the service bulletin.)

The FAA concurs with the commenter's request to reference Revision 1 of the service bulletin in this final rule, and has revised paragraphs (a) and (b) of the final rule accordingly. Also, because the procedures are essentially the same as the original issue, the FAA has included a new "Note 2" in the final rule (and renumbered subsequent notes accordingly) to state that actions accomplished per the original issue of the service bulletin before the effective date of this AD are acceptable for compliance with this AD.

Request to Revise Repetitive Interval in Paragraph (a)(1)

The commenter also requests that the FAA revise the repetitive interval stated in paragraph (a)(1) of the proposed rule to be consistent with the interval provided in the service bulletin.

Paragraph (a)(1) states a repetitive interval of 250 flight hours, which applies if no discrepancies (inadequate grip length; gaps between the bolt head, washer, and structures; missing fasteners) are found during the inspection in paragraph (a). For this same condition, paragraph 1.E. "Compliance" in the service bulletin, states a repetitive interval of 250 flight *cycles*.

The FAA concurs with the commenter's request to revise the compliance time in paragraph (a)(1) from 250 flight hours to 250 flight cycles. The FAA's intent was for the repetitive intervals in this AD to correspond to those in the service bulletin for airplanes on which no discrepancies were found. Paragraph (a)(1) of this final rule has been revised accordingly.

Request to Revise Compliance Time in Paragraph (b)

The commenter requests that the FAA revise the compliance time stated in paragraph (b) to be consistent with the compliance time given in the service bulletin. Paragraph (b) specifies accomplishment of the actions in that paragraph at intervals not to exceed 3,000 flight cycles or 18 months after the effective date of this AD, whichever occurs *later*. The commenter points out that the service bulletin specifies a compliance time of 3,000 flight cycles or 18 months, whichever is *first*. The commenter states that the alternatives given in the service bulletin are intended to ensure that these requirements are done in a timely manner on airplanes that have a low number of flight cycles.

The FAA concurs with the commenter's request. It was the FAA's intent for the compliance time in paragraph (b) to correspond to that provided in the service bulletin. However, paragraph (b) in the proposal inadvertently specified "whichever occurs later," when it should have said "whichever occurs first." Also, though the proposed rule stated a compliance time of 3,000 flight cycles or 18 months *after the effective date of this AD*, the service bulletin provides a compliance time of 3,000 flight cycles or 18 months (whichever is first) *after the first inspection of the fasteners*. The FAA finds that the compliance time specified in the service bulletin, though it is somewhat longer than the compliance time stated in the proposed rule, is adequate to ensure the continued safety of the affected airplanes and to ensure that the actions required by paragraph (b) of this AD will be completed in a timely manner. Paragraph (b) in this final rule has been revised accordingly.

Request to Revise Paragraph (b)(3)

The commenter requests that the FAA revise paragraph (b)(3) of the proposed rule to remove the requirement to install a new nut plate "in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings." The commenter states that replacement of worn nut plates with new nut plates is a standard maintenance procedure, and requiring replacement of nut plates as specified in paragraph (b)(3) of the proposal would place

an undue burden on operators by forcing them to request an alternative method of compliance for a standard maintenance operation.

The FAA concurs with the commenter's request to revise paragraph (b)(3) of the proposal, and has revised that paragraph accordingly in this final rule. However, the FAA finds that it is necessary to clarify its intention. As stated before, the FAA noted in the "Differences Between Proposed Rule and Service Bulletin" section of the preamble of the proposal that the service bulletin did not specify procedures for disposition of certain repair conditions. The FAA intended to include the instruction to repair per a method approved by the FAA or per data approved by a Boeing Company DER to provide for conditions where the service bulletin did not include instructions. However, this instruction was inappropriately placed into paragraph (b)(3) of the proposed rule, so that it applied to replacement of the nut plate, rather than other repair conditions.

As described above, since the issuance of the proposed AD, Revision 1 of the service bulletin has been issued to specify procedures for disposition of certain repair conditions that were omitted in the original issue. While the procedures in the service bulletin specify to contact Boeing for repair procedures, the FAA finds it necessary to require such repairs to be done per a method approved by the FAA, or per data approved by a Boeing Company DER. Accordingly, the reference to repairing per the FAA or per data approved by a Boeing Company DER has been moved from its location in paragraph (b)(3) of the proposal to a new paragraph (b)(5) in this final rule. Because the FAA clearly expressed its intent in the proposed rule to include such a provision in this AD, the FAA finds that this change results in no additional burden on operators, and may in fact be relieving to certain operators, because the original issue of the service bulletin did not provide repair procedures.

Explanation of Additional Change to Paragraph (b)

For certain conditions, paragraphs (a)(1) and (a)(2) of the proposed rule refer to the accomplishment of the requirements of paragraph (b) "prior to further flight." However, paragraph (b) of the proposal includes a separate compliance time. The FAA finds that, without clarification, these two compliance times could be potentially confusing for operators. Therefore, the FAA has revised paragraph (b) of this final rule to include the provision "Except as provided by paragraphs (a)(1) and (a)(2) of this AD," to restrict the compliance time for paragraph (b) for those operators that accomplish paragraph (b) "prior to further flight" per paragraph (a)(1) or (a)(2).

Explanation of Change to Applicability

For clarification, the FAA has revised the applicability of this final rule to specifically identify Boeing Model 737-700C series airplanes. While the service bulletin does not specify that Model 737-700C series airplanes are subject to the actions in the service bulletin, the list of affected line numbers includes the line numbers of certain Model 737-700C series airplanes.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 123 Model 737-600, -700, -700C, and -800 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 52 airplanes of U.S. registry will be affected by this AD, that it will take approximately 11 work hours per airplane (including access and close-up hours) to accomplish the required actions, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of this AD on U.S. operators is estimated to be \$34,320, or \$660 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption “ADDRESSES.”

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-06-15 BOEING: Amendment 39-12162. Docket 99-NM-312-AD.

Applicability: Model 737-600, -700, -700C, and -800 series airplanes, as listed in Boeing Alert Service Bulletin 737-55A1064, Revision 1, dated December 7, 2000; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent jamming, restricting, or binding of the elevator control surfaces due to loose or missing fasteners; which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane; accomplish the following:

Inspections of Fasteners, and Corrective Action, If Necessary

(a) Within 250 flight hours or 30 days after the effective date of this AD, whichever occurs first, perform a detailed visual inspection of the fasteners in the elevator balance panel to detect inadequate grip length, gaps between the bolt head, washer, and structure, and missing fasteners, in accordance with paragraph 3.A. of the Accomplishment Instructions of Boeing Service Bulletin 737-55A1064, Revision 1, dated December 7, 2000.

Note 2: Accomplishment of the actions specified in Boeing Service Bulletin 737-55A1064, dated October 15, 1998, prior to the effective date of this AD is acceptable for compliance with the applicable actions required by this AD.

Note 3: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If adequate grip length is detected, if no gap is detected, and if no fastener is missing, repeat the inspection thereafter at intervals not to exceed 250 flight cycles until the requirements of

paragraph (b) of this AD have been accomplished; or prior to further flight, accomplish the actions specified in paragraph (b) of this AD.

(2) If inadequate grip length is detected, if any gap is detected, or if any fastener is missing, prior to further flight, accomplish the actions specified in paragraph (b) of this AD.

Inspection and Corrective Actions, If Necessary

(b) Except as provided by paragraphs (a)(1) and (a)(2) of this AD, within 3,000 flight cycles or 18 months after the first inspection in accordance with paragraph (a) of this AD, whichever occurs first: Perform a detailed visual inspection to detect missing fasteners at the locations specified in Figure 2 of Boeing Service Bulletin 737-55A1064, Revision 1, dated December 7, 2000, to detect inadequate grip length, and to determine the locking torque of the nut plates specified in Figure 2 of the service bulletin. These actions shall be done in accordance with paragraph 3.B. (“Fastener Inspection and Replacement”) of the Accomplishment Instructions of Boeing Service Bulletin 737-55A1064, Revision 1. Accomplishment of the inspection constitutes terminating action for the repetitive inspection requirements of paragraph (a)(1) of this AD.

(1) If no loose (i.e., minimum locking torque of nut plate not achieved) fastener is detected, if no fastener is missing, and if adequate grip length is found, no further action is required by this paragraph.

(2) If any fastener with an inadequate grip length is found, prior to further flight, replace the fastener with a new fastener in accordance with the service bulletin; and perform a detailed visual inspection of adjacent elevator and horizontal stabilizer structure to detect damage. If any damage is found on adjacent elevator or horizontal stabilizer structure, prior to further flight, repair or replace the damaged structure or component in accordance with the service bulletin.

(3) If any nut plate is found to have inadequate locking torque, prior to further flight, install a new nut plate.

(4) If any fastener is missing, prior to further flight, install a new fastener in accordance with the service bulletin; and perform a detailed visual inspection of adjacent elevator and horizontal stabilizer structure to detect damage. If any damage is found on adjacent elevator or horizontal stabilizer structure, prior to further flight, repair or replace the damaged structure or component in accordance with the service bulletin.

(5) Where the service bulletin specifies to contact Boeing for repair procedures or does not specify repair procedures, before further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager’s approval letter must specifically reference this AD.

Reporting Requirement

(c) Within 10 days after accomplishing any inspection required by paragraphs (a) and (b)—not including paragraph (b)(2)—of this AD, submit a report of the inspection results (positive findings only) to the Manager, Seattle Manufacturing Inspection District Office, ANM-108S, 2500 East Valley Road, Suite C-2, Renton, WA 98055-4056; fax (425) 227-1159. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) Except as provided by paragraph (b)(5) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 737-55A1064, Revision 1, dated December 7, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(g) This amendment becomes effective on May 7, 2001.

FOR FURTHER INFORMATION CONTACT: Scott Fung, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1221; fax (425) 227-1181.

Issued in Renton, Washington, on March 23, 2001.

Donald L. Riffin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.